

REMARKS

The Office Action of June 23, 2002 has been carefully reviewed. Re-examination, reconsideration, and allowance of the application are requested in view of the above amendments and the following remarks and arguments.

STATUS OF THE APPLICATION

The application, as filed included three (3) claims including two (2) independent claims.

No claims have been currently allowed.

No claims have been indicated to be allowable.

No claims have been amended.

Independent claim 6 has been canceled.

Claims 7 - 10 have been added, including two independent claims.

Therefore, the application now includes six (6) claims including three (3) independent claims. No additional fee is required, as shown by the attached AMENDMENT TRANSMITTAL LETTER.

The amendments are supported by the application, claims and drawings as filed, and therefore do not constitute new matter.

DECLARATION

It is noted with appreciation that there has been no objection to the Declaration. It is therefore assumed that the Declaration as filed has been accepted.

ABSTRACT

The Abstract of the disclosure has not been objected to, and it is therefore understood to be acceptable as filed.

THE DRAWINGS

The drawings have not been objected to, and are therefore understood to be acceptable and to support the claims as filed.

THE SPECIFICATION

The disclosure in the specification has not been objected to, and it is therefore understood to be acceptable as filed, and to support the claims as filed and the drawings as corrected.

CLAIM OBJECTIONS

The format of the claims has not been objected to, and they are therefore understood to be in an acceptable format as filed.

SUMMARY OF THE INVENTION

The present invention relates to a nano-sized transition metal catalyst selected from Group VI metals for use during alcohol synthesis from carbon monoxide and hydrogen.

RESPONSE TO REJECTION UNDER 35 U.S.C. §112

Claim 6 has been rejected under 35 U.S.C. 112, 2nd paragraph, as being as being an omnibus type claim. Claim 6 has now been cancelled without prejudice, and it is requested that this grounds for rejection now be withdrawn.

Examiner's assistance in identifying this 35 U.S.C. 112, 2nd paragraph error is appreciated.

Claims 3 and 4 have not been rejected under 35 U.S.C. §112. It is therefore understood that claims 3 and 4, as filed, are acceptable under 35 U.S.C. 112, 2nd paragraph.

RESPONSE TO CLAIM REJECTIONS UNDER 35 USC § 102(b)

Claims 3 and 4 have been rejected under 35 U.S.C. 102(b) as being anticipated by Boake (American Chemical Society, Div. Fuel Chem (1992), 37 (1), 298-305). Examiner has stated that Boake discloses a nanosized molybdenum sulfide catalyst using microemulsion systems, which reads on nanosized Group VI transitional metal catalyst claimed by applicant. Examiner has concluded that applicant's claimed invention is directed to a nanosized Group VI transitional metal catalyst.

This basis for rejection is traversed in part by argument and is also avoided by new claims 7 - 10.

First it is noted that Examiner's representation of Boake is inaccurate. Boake does not anticipate claims 3 and 4 as filed and therefore does not meet the requirements for anticipation as set forth in 35 U.S.C. 102(b), and for this reason alone this basis of rejection should be withdrawn.

More specifically, claim 3 is for Group VI transition metal catalysts for use in producing mixed alcohols from gases including carbon monoxide and hydrogen. By contrast, Boake teaches a nanosized molybdenum sulfide catalyst (emphasis added). First Boake's catalyst is not for a metal catalyst, but rather are for a metal sulfide. Therefore, Boake neither teaches nor suggests the Group VI transition metal catalysts of claim 3 of the present application. Furthermore, Boake's catalyst is not taught to be useful "for use in producing mixed alcohols from gases including carbon monoxide and hydrogen", as required by claim 3, but rather for coal liquefaction, a non-analogous use. For these reasons the rejection of claim 3 under 35 U.S.C. §102(b) is either non-existent or unsupported and should be withdrawn, and claim 3 allowed.

Claim 4 is for the Group VI transition metal catalysts for use in producing mixed alcohols from gases including carbon monoxide and hydrogen, but wherein the catalysts include sulfur. Claim 4 depends from novel claim 3, and it therefore follows that claim 4 is also novel. Therefore, Boake neither teaches nor suggests the Group VI transition metal catalysts including sulfur of claim 4 of the present application. Furthermore, again Boake's catalyst is not taught to be useful "for use in producing mixed alcohols from gases including carbon monoxide and hydrogen", as required by claim 3 and dependent claim 4, but rather for coal liquefaction, a non-analogous use. For these reasons the rejection of claim 4 under 35 U.S.C. §102(b) is either non-existent or unsupported and should be withdrawn, and claim 4 allowed.

Furthermore, claims 3 and 4 are not obvious under 35 U.S.C. §103(a) since Boake neither teaches nor suggests catalysts that are taught to be useful "for use in producing mixed alcohols from gases including carbon monoxide and hydrogen". For this reason there would be no motive to modify Boake in the manner taught and claimed by the present application, and any future rejection of claims 3 - 4 under 35 U.S.C. §103(a) would be unsupported, and should not be made, and claims 3 - 4 should be allowed under 35 U.S.C. §103(a).

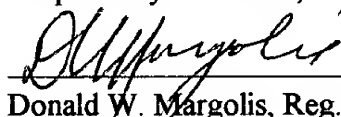
New claims 7 - 10 are product-by-process claims, and rely on a process and on an end use neither taught nor suggested by Boake. Therefore Boake neither teaches nor suggests the catalysts claimed under 35 U.S.C. §102(b) nor under 35 U.S.C. §103(a), and therefore claims 7 - 10 should be allowed under those statutes. New claims 7 - 10 are supported by the application at page 3, line 18 through page 4, line 2, and therefore do not constitute new matter.

CONCLUSION

In conclusion, it is believed that the present application is now in condition for allowance. Rejection of claim 6 under 35 U.S.C. §§112 has been avoided by cancellation. Rejection of claims 3 - 4 under 102(b) have been avoided by argument. New claims 7 - 10 are neither anticipated nor obvious in view of Boake. No other objections or rejections to the application have been made. It is therefore requested that the amendments be entered and that the application be reexamined, reconsidered and allowed.

Should any issues remain, it is requested that Examiner telephone undersigned so that we may dispose of this application.

Respectfully submitted,




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Enclosures
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CERTIFICATE OF MAILING STATEMENT

I hereby certify that on this date this correspondence and authorization to charge a deposit account is being deposited with the United States Postal Service as first class mail in an envelope with proper postage attached and addressed to: Commissioner of Patents, Amendment- Non-Fee, Washington, D.C. 20231.



September 23, 2002